BEAST Examination Categories

Crime Scene

CSI Crime Scene Investigation

Collecting, documenting, and managing physical evidence from scene of crime

CSR Crime Scene Reconstruction

Determination of most probable sequence of events

VEH Vehicle Inventory/Search

Inventory of items taken from vehicle search

VEP Vehicle Processing

Collecting, documenting, and managing physical evidence from a vehicle

Biology Section

BIO Biology

Examination of evidence for the presence of biological materials such as blood, semen, and saliva;

DNA analysis of evidence samples and known reference samples

CODIS Combined DNA Index System

DNA profile search of databases (State and National) to generate

investigative lead through a DNA profile match; searchable indexes are: offender, forensic (casework),

missing persons, unidentified human remains, and biological relatives of missing persons

For SDFL use only.

Firearms Section

FA Firearms Identification

Analysis of fired cartridge and/or shot shell components to determine he possible type of firearm

involved. Includes comparison to recovered and submitted firearms

BTE Bullet Trajectory

Analysis to determine the pathway or trajectory bullets take during short and distant travel

EPT Ejection Pattern Test

Analysis to determine how a particular firearm arrays the fired cartridge cases ejected from it

FUN Functionality Test

Analysis to determine functionality and operability of firearm. Includes trigger pressure analysis to

determine the amount of force required to actuate the firing mechanism

GSR Gun Shot Residue

Analysis of GSR (primer residues) kits taken from suspect's hands or other evidence items e.g. clothing, vehicle interiors to determine whether or not an individual has discharged a firearm or were

in close proximity of a discharged firearm.

MUZ Muzzle to Target

Analysis to determine the distance between firearm and target (all types of firearms including shotgun and shot pattern evidence). Includes visible and non-visible GSR (smoke, soot, burned and partially burned gunpowder particles) analysis. This type of GSR analysis is different from the GSR (primer residues) analysis performed on GSR kits collected from a suspect's hands and/or other evidence

surfaces (listed above).

NIB National Integrated Ballistics Identification Network

The input of characteristics of expended ammunition into a national computer data base for

comparison purposes

POA Point of Aim

Analysis to determine the accuracy and precision of a firearm's sights to the point of aim

SNR Serial Number Restoration

Restoration of erased and/or obliterated serial numbers

TM Tool Mark

Comparison of tool marks left at a crime scene to known standards produced by the suspect tool

FC Firearms Collection

Per SDCL 23A-37-13, describes controlled firearms and weapons disposal

BAL Ballistics

Analysis not included in any of the other examination categories, e.g. chemical examinations to determine the presence of bullet material residues (lead, copper, etc), order of shots (e.g. glass), measuring muxtle velocity and energy, determining bullet entrance vs. exit, terminal ballistics

(projectile behavior on a target and/ or target behavior on a projectile)

Trace Section

CHE Chemical

Analysis to determine the identification of unknown substance

FIB Fiber

Analysis to determine the identification of fiber type; comparison of known and unknown fibers

samples

GLA Glass

Analysis to determine if two samples come from same source; fracture matching

HAI Hair

Analysis to determine hair species & origin

SOI Soil

Analysis to determine composition of suspect soil

PRO Protective Coating

Analysis to determine the layers of a protective coating such as paint

MIC Microscopic

Analysis to determine presence and identity of unknown substance (e.g. fingernail scrapings)

IGL Ignitable Liquids

Analysis of liquid substance to determine if substance is flammable

FDA Fire Debris Analysis

Analysis to determine if debris contains an accelerant

FAB Fabric Impression

Analysis of impressions formed when a fabric contacts a hard surface

Document Section

QD Questioned Document

Analysis to answer questions about a disputed document; may involve comparison of the questioned document to a set of known standards; most common type involves potential authorship of

handwriting.

IP Ink, Papers, Alterations, and Obliterations

Inks can be examined to determine if different inks were used to produce a particular document in question. Inks that have been obliterated or destroyed through fading, burning, water, overwriting, chemicals, or other means can often be recovered and made legible. Paper can be compared with known samples to determine if the document in question is similar to a known sample. Paper can sometimes be dated or traced to a particular source or manufacturer. Alterations and Obliterations exams are performed in order to detect whether a portion of a document has been altered, some portion rendered not readily visible, or some text added.

IND Indented Writing

Indented writing is an imprint which may be left on the underlying pages when the top sheet of paper is written upon. This impression of the writing is influenced by pen pressure and thickness of the paper. Indented writing is very useful as a form of connecting evidence, such as tying a robbery note to

a writing pad recovered from a suspect.

PPM Paper Physical Match

Anything that is torn, cut, fractured, snapped, pulled, or ripped apart can be matched back to its congruent counterpart, e.g. matches reconstructed to their match books, shredded or tom documents, cut documents, etc. Paper that has been burned or water soaked can often be restored.

Fingerprint Section

FP Latent Fingerprint Examination

There are two exams available within this request, fingerprint processing (FP-P) and fingerprint comparison (FP-C).

<u>Fingerprint processing</u> cases consist of crime scene evidence from which the print section attempts to develop latent prints. If ridge detail is present, an added fingerprint comparison examination will be added by the laboratory staff. At this time fingerprint processing is the only type of fingerprint exam performed at the SDFL.

<u>Fingerprint comparison</u> cases consist of an agency's submitted lifts taken from a crime scene.

These lifts are compared to individuals under investigation as well as entered into the AFIS database.

At this time, all comparison cases are outsourced to Ron Smith & Associates for completion. Ron Smith & Associated will issue a report to the submitting agency

Digital Evidence

DEP Digital Evidence Preview

Analysis of digital evidence to see if evidence is present; only specific type of evidence that submitter requests will be looked for (e.g. child porn, text messages). Prelog must be accompanied by Digital Evidence Request for Laboratory Examination (see Attorney General website www.atg.sd.gov;(follow DCI link to Forensic Lab link) No CD report of exam is issued. No search warrant or consent forms required.

DEA Digital Evidence Analysis

Full analysis of digital evidence to include computers, cell phones, digital cameras, etc; only specific type of evidence that submitter requests will be looked for (e.g. child porn, text message). Prelog must be accompanied by Digital Evidence Request for Laboratory Examination (see Attorney General website www.atg.sd.gov; (follow DCI link to Forensic Lab link) Search warrant or consent forms required

DEFA Digital Evidence Field Assist

Request a digital evidence examiner to assist in a search warrant and/or other field activity on site.

DEI Digital Evidence Image

Request for copy of examiner's evidence files or suspect's hard drive

DEW Digital Evidence Wipe

Request for computer hard drive to be wiped completely clean; authorization form required (see Attorney General website http://www.atg.sd.gov (follow DCI link to Forensic Lab link).

DERC Digital Evidence Report Copy

The request for duplication of an FTK report for an additional distribution

DEE Digital Evidence Video/Audio Enhancement

Request to enhance media for clarity

Miscellaneous

CRI Criminalistics

A specific analysis type not usually requested, but significant to a specific case. Contact the laboratory

to discuss this option.

COM Compliance w/SDCL

Analysis of an item(s) which requires a specific examination that will result in a compliance with any

SDCL, such as the weight of gunpowder allowed in pyrotechnics (firecrackers). Also used in conjunction with firearm destruction requests. Court order must accompany all firearm destruction

requests, as well as a copy of the negative NCIC check.

PHO Photograph Media Request

Request to photograph specific pieces of evidence as required

NCA Non Criminal Assist

The Non Criminal Assist analysis code is appropriate for use when assistance is required by a department/agency in which a criminal offense did not occur, i.e. recovery of data on an officer's hard

drive after a computer malfunction.

BPI Blood Stain Pattern Interpretation

Examination of the shapes, locations, and distribution of patterns of bloodstains, in order to provide

an interpretation of the physical events which gave rise to their origin

TP Tire Print Examination

Analysis of either photographs or casts (preferably both) of tire tread marks to determine if patterns of

two samples are the same; also to determine if specific tire made a specific print

SHO Shoe Print Examination

Analysis of either photographs or casts (preferably both) of shoe pattern to determine if patterns of two

samples are the same, also to determine if specific shoe made a specific print